

Docket No. 241342US2S/hc



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Takamichi TSUCHIYA, et al.

SERIAL NO: 10/635,574

GAU:

FILED: August 7, 2003

EXAMINER:

FOR: SEMICONDUCTOR DEVICE

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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**STATEMENT OF RELEVANCY**

**Reference AO (JP 2000-138350) on Form 1449:**

It shows that the oxygen barrier layer (TiOx) covering the ferroelectric capacitor prevents the barrier metal layer and the bottom electrode from oxidization.

**Reference AP (JP 2001-237393) on Form 1449:**

They apply the similar structure to prevent the ferroelectric capacitor from the degradation during the later processes (mainly, H<sub>2</sub>, H\* damages).

**Reference AQ (JP 11-514158) on Form 1449:**

It shows that the oxygen barrier layer (TiOx etc) covering the ferroelectric capacitor keeps the property from its degradation due to the oxygen transfer during forming gas annealing.



Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 241342US2S		SERIAL NO. 10/635,574	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Takamichi TSUCHIYA, et al.			
				FILING DATE August 7, 2003		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	AO	2000-138350	05/16/2000	JAPAN			X
	AP	2001-237393	08/31/2001	JAPAN			X
	AQ	11-514158	11/30/1999	JAPAN			X
	AR						
	AS						
	AT						
	AU						
	AV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	AW						
	AX						
	AY						
	AZ					<input type="checkbox"/> Additional References sheet(s) attached	
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							